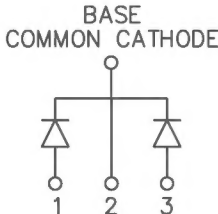


□ □ FST31180 □ □ □

Dia.

PLASTIC TO-220AB

- Schottky barrier rectifier
- Guard ring for reverse protection
- Reverse energy tested
- High surge capacity
- V_{RRM} 180 to 200 Volts

Electrical Characteristics

Average Forward Current per pkg.	$I_{F(AV)}$ 30 Amps	$T_C = 167^{\circ}\text{C}$, Square wave, $R_{\theta JC} = 1.0^{\circ}\text{C/W}$
Average Forward Current per leg	$I_{F(AV)}$ 15 Amps	$T_C = 167^{\circ}\text{C}$, Square wave, $R_{\theta JC} = 2.0^{\circ}\text{C/W}$
Maximum Surge Current per leg	I_{FSM} 250 Amps	8.3ms, half sine, $T_J = 175^{\circ}\text{C}$
Max. Peak Forward Voltage per leg	V_{FM} 0.65 Volts	$I_{FM} = 15\text{A}$, $T_J = 175^{\circ}\text{C}^*$
Max. Peak Forward Voltage per leg	V_{FM} 0.83 Volts	$I_{FM} = 15\text{A}$, $T_J = 25^{\circ}\text{C}^*$
Max. Peak Reverse Current per leg	I_{RM} 1 mA	V_{RRM} , $T_J = 125^{\circ}\text{C}^*$
Max. Peak Reverse Current per leg	I_{RM} 250 μA	V_{RRM} , $T_J = 25^{\circ}\text{C}$
Typical junction capacitance	C_J 230 pF	$V_R = 5.0\text{V}$, $T_J = 25^{\circ}\text{C}$

*Pulse test: Pulse width 300 μ sec. Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	TSTG	-55°C to + 175°C
Operating junction temp range	TJ	-55°C to + 175°C
Max thermal resistance per leg	R θ JC	2.0°C/W Junction to case
Max thermal resistance per pkg.	R θ JC	1.0°C/W Junction to case
Mounting torque		15 inch pounds maximum (6-32 screw)
Weight		.06 ounces (1.8 grams) typical

FST31180 — FST31200

Figure 1
Typical Forward Characteristics — Per Leg

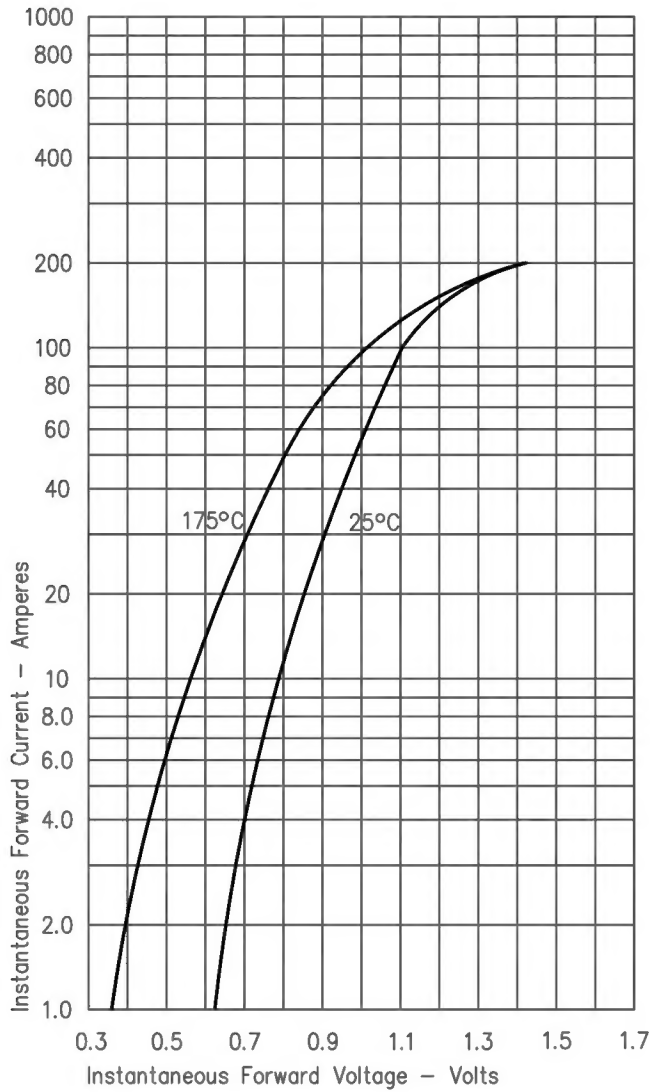


Figure 3
Typical Junction Capacitance — Per Leg

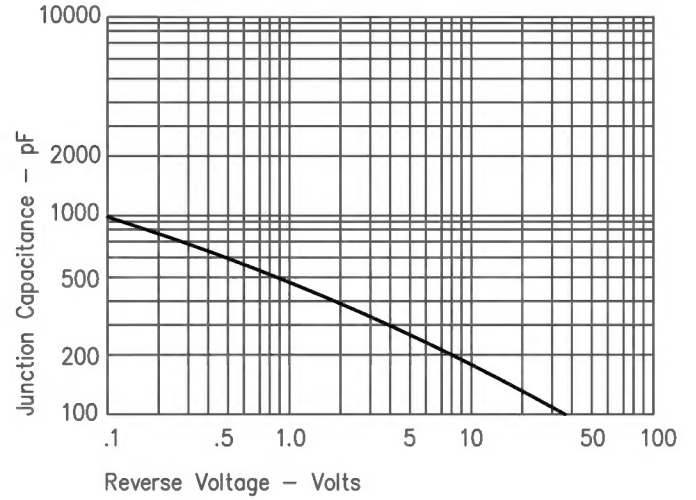


Figure 4
Forward Current Derating — Per Leg

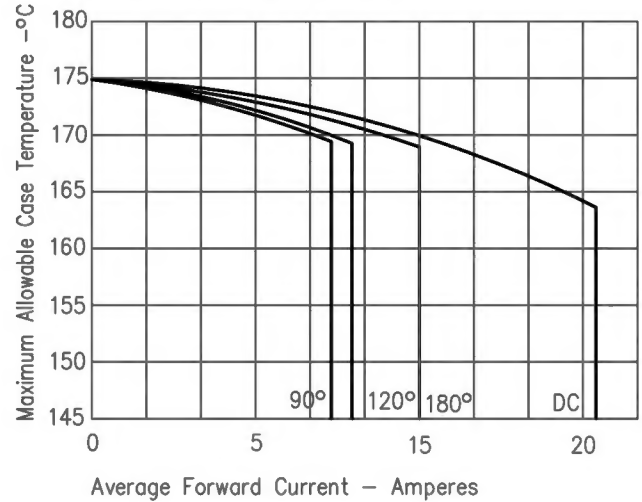


Figure 2
Typical Reverse Characteristics — Per Leg

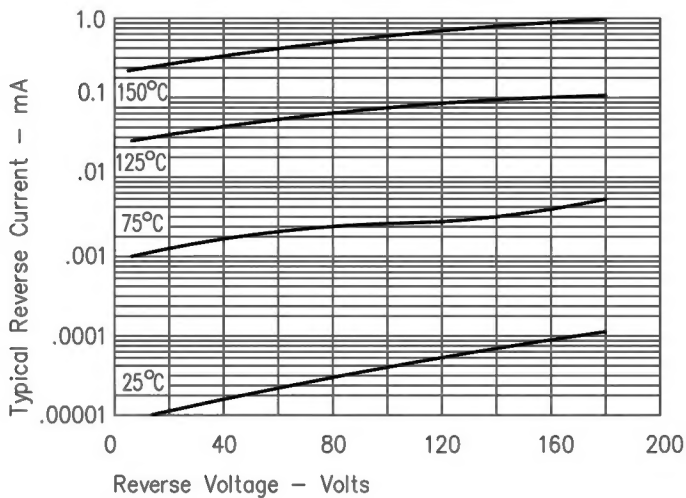


Figure 5
Maximum Forward Power Dissipation — Per Leg

